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# BEEF VALUE CHAIN ASSESSMENT

**USAID AGRIBUSINESS PROJECT**

**SERBIA**

**SEPTEMBER 2008**

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# BEEF VALUE CHAIN ASSESSMENT

## EXECUTIVE SUMMARY

This beef value chain assessment identifies key factors impacting the industry, overarching constraints, and the opportunities that the industry may be able to take advantage of. The assessment has both confirmed widespread constraints and identified potential areas of intervention by the U.S. Agency for International Development (USAID) Agribusiness Project to facilitate sector development.

The sector has experienced a long decline, averaging 1.5 percent annually,<sup>1</sup> over the two decades since the conflicts of the 1990s and the subsequent restructuring of the economy. These events led to the breakup and privatization of Agrokombinats and cooperatives, which had been key players in the production and processing of beef in Serbia. Making the transition and adapting to the present market conditions has been a difficult road for most engaged in the industry.

The beef sector is intimately linked with the dairy sector in that most of the animals entering the beef chain are bull calves coming out of the dairy sector replacement process. The beef sector is largely focused on the domestic market, which has considerable room for further growth. The sector's value is estimated at \$500 million (free on board) and most production originates from dual-purpose Simmental herds. (Note: all dollar amounts are US dollars.) The industry is dogged by the lack of a long-term national strategy for its development, fluctuating markets, rising inflationary pressures, and a strong dinar, making Serbian beef less competitive on the international market. Productivity is low, while costs of production are increasing. Improving technological and management practices could help producers become more competitive, increasing their herds' reproductive capacity as well as making production systems more efficient.

Other key factors are the current overcapacity of the country's meat-processing plants, the low level of investment, and the inadequate systems of certification and licensing for export. These issues, coupled with a low rate of new technology adoption at the producer and processor levels, a lack of specialization and stratification of beef producers in the industry, low rate of adoption of improved production and management systems to meet domestic and export demand, and the disconnect between the main stakeholders, producers, institutions, and the processing industry, all contribute to the marginalization of the sector.

There are some encouraging signs. The national herd has shown a small but steady increase in the past few years. Although Serbia has yet to fully capitalize on them, it has the climate and resources for efficient livestock production systems.

Our value chain assessment has helped to identify the areas and pragmatic actions that can be undertaken by the USAID Agribusiness Project to assist the development of the sector. **Key constraints to be addressed** by the project are:

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<sup>1</sup> CEEC agricultural policy document, *Perspective of the Meat Sector in Serbia 2007*.

- The lack of technical knowledge and adoption of improved technology and management practices by producers, processors, and agribusiness development services (ABDS) providers, requiring development of a technical support package, its timely delivery, and the sustainability of its delivery, using services of ABDS providers and facilitated by the project.
- A somewhat fragmented sector with insufficient links between key stakeholders, producer organizations, the processing sector, and sources of market information, requiring improved market linkages.
- Inadequate vision, strategy, and support measures for the industry at the national and policy levels, requiring development of a national strategy and policy for the sector with participation of all stakeholders.
- Lack of continuity of supply of product in terms of both quantity and standardized quality, requiring functional producer organizations, increased herd size, and organized production system for the market.

**Key opportunities and areas of intervention** by the project are:

- Identify the key entry points for the project. These will be reached via the processors and the producer organizations, including larger, commercially oriented producers.
- Develop working relationships between the project and key stakeholders at the processor, producer organization, and ABDS service provider levels.
- Develop a memorandum of understanding between those select partners in support of their strategy that dovetails with and complements project interventions.
- Collaborate with and leverage the efforts of meat processors, producers, and the Ministry of Agriculture, Forestry and Water Management (MAFWM) in support of developing a national strategy for the beef industry.
- Consolidate and strengthen linkages among stakeholders.
- Focus on the more commercially oriented farm units, including offering support for enlarging family farms and for supplying technology and market information to such production units using ABDS providers.
- Support specialization of production systems among beef producers to achieve more efficient and competitive production.
- Help interventions attain economy of scale of by working with producers through both formal and informal producer organizations, such as the Baby Beef Producers Association and Breeders' Associations.
- Support the genetic improvement of livestock by working with ABDS providers and suppliers of improved genetic materials to improve reproductive performance and increase calving rates, as well as strengthen the genetic basis of the herd.
- Support the development of market linkages between processors and producer groups; develop a package of intervention measures supported by and delivered by ABDS providers in the sector.

- Ensure that production systems and processing facilities meet EU requirements in food safety and hygiene.
- Support processors in adding more value, developing new products, and improving packaging and presentation of products.
- Support production of products for specific market opportunities, particularly baby beef production and the Halal trade.
- Support participation of processors and large producers participate in trade shows, exchange trips, and study tours.

**Key targets** in achieving project goals in the beef and meat processing sector will be increased sales of 10 percent in annual targets for the domestic and export markets, through processed red meat for the Eastern European market and the Halal market. This will be achieved through activities linking Serbian processors and meat producers with the growing number of supermarkets in Serbia and export markets in the Western Balkans, Russia, and Ukraine. In regard to the baby beef industry, key targets will be aiding Serbia in reaching its quota of 8,700 tons over the next 3–4 years, increasing sales by \$20–30 million annually.

The project will support work with ABDS providers to improve the competitive position of the industry by boosting quality and productivity, in response to additional market demand by both domestic and export buyers for the products. Increasing herd productivity and performance—in particular, raising the calving rate by 10 will contribute to increased supply on the market.

**Key activities** include working with the producer organizations, such as the Baby Beef Producers Association, to prepare trade policy position papers and intensify lobbying efforts by industry representatives to promote a “level playing field” in terms of subsidies, given that the European Union (EU) plans to continue beef subsidies for EU accession for Stabilization and Association Agreement (SAA) countries for at least the next five years. The project will also work with all major Serbian meat processors and exporters to promote Halal and other regular beef sales to Macedonia and Montenegro. Such sales are now almost 7,000 tons annually—triple Serbia’s beef sales to EU markets. The project will support improvement of service provision by rural service providers (including via “embedded services” from commercial interests such as input suppliers) to improve competitiveness in the subsector along its supply chain and producers. The project may do so by working with group of select processors, such as to create an implementation strategy to develop and improve service delivery.

# 1 INTRODUCTION TO THE SERBIAN BEEF SUBSECTOR

*“The USAID project task is to support the strategy of increasing supply and sales in both the domestic and export market by supporting Serbian producer organizations to increase the national herd size annually through 2012.”*

Serbia has a strong tradition as a beef producer and exporter. During the communist era, beef production in the country was the forte of large state-owned and -run collective farms (agrokombinati<sup>2</sup>) and cooperatives. It was mainly carried out in the province of Vojvodina, in the northern region of the country, recognized as the “Breadbasket of the Balkans.” During the 1960s and 1970s, Serbia produced up to 80,000 tons of beef valued at \$160 million annually, and it supplied almost 90 percent of former Yugoslavia’s well-known beef export industry, including most of the 20,000 to 30,000 tons of beef that Yugoslavia exported annually to European and Middle Eastern markets. (Note: all dollar amounts cited are in US dollars.)

During the 1980s, however, as political and economic uncertainty worsened, sales of beef and investments in beef production began to fall. In the 1990s, with the economic sanctions of the Balkan war years, the industry came to a standstill. During this period, most of Serbia’s once formidable state-owned beef exporting companies effectively went out of business (the better-financed beef exporters shifted to pork production for the domestic market). The economic sanctions, combined with other structural issues, resulted in a severe national herd reduction (see Table 1, Serbian Cattle Numbers 1999–2007).

**TABLE 1: SERBIAN CATTLE NUMBERS 1999–2007**

Serbian Cattle Numbers	1999	2000	2001	2002	2003	2004	2005	2006	2007
1,000s of Head of Cattle									
Serbian cattle	1,283	1,246	1,162	1,128	1,112	1,102	1,079	1,106	1,150
Imported cattle	0	0	0	0	0	0	3	2	2
Total Serbian cattle	1,283	1,246	1,162	1,128	1,112	1,102	1,083	1,098	1,102
Calves under 3 months	147	128	119	119	121	118	111	117	120
Heifers from 3 mo. to 2 years	260	252	215	203	208	205	218	242	250
Heifers over 2 years	16	15	12	16	16	17	12	14	18
Cows and heifers in calf	828	817	787	752	740	742	721	720	740
Cows for draft purposes	76	69	65	63	53	26	23	20	16
Breeding bulls	5	4	8	9	7	7	8	5	5
Oxen	NA	NA	21	28	21	12	9	8	7

Source: Ministry of Agriculture data extrapolated (based on trends) from the last census of 2002

During the 1990s, the larger socially owned cooperatives (SOE) and the once very productive beef agrokombinati experienced significant declines in productivity and investment and fell into bankruptcy (usually because of the withdrawal of Serbian government subsidies). Over the last five years the Serbian government has pledged to privatize these farmlands, but social problems and the high cost of paying off many of the workers’ claims have slowed this process well beyond earlier expectations. In addition, many

<sup>2</sup> Agrokombinati were normally vertically integrated and included farm production, processing, and a number of farm enterprises.

of the agrokombinats have large debt loads, which make the privatization process more difficult. As a result, the privatization of some 200,000 hectares of land is expected to continue at a slow rate for at least two more years and will be heavily dependent on the policy adopted by the newly formed government.

There are still a number of vertically integrated companies, both in the private and public sectors, that operate beef production enterprises. These are significant players in the industry, and the USAID Agribusiness Project believes that with appropriate management and the adoption of new technology, they can continue to have an important role in the sector, particularly in the further development of market linkages.

Private farmers engaged in beef production by and large run mixed farm enterprises. Few specialize in beef production, and fewer participate in internal stratification<sup>3</sup> or segmentation of the sector, such as calf-rearing enterprises, baby beef and veal production, grain-fed 18-month beef production, and grass-fed systems. Many are small to medium-sized family farms which may not be well linked with the market chain, and may not produce the quality of product desired by the domestic and export market.

While Serbia has been a traditional exporter of baby beef to the European Union (EU) market (primarily Italy) and currently is allocated an EU beef quota of some 8,700 tons, it is failing to meet the needs of this market. In 2006 Serbia exported only 2,600 tons, which had an estimated value of \$10.35 million. This value could rise to up to \$45 million should Serbia be able to meet its full quota. Achieving this increased volume and value of sales for both the domestic and export market is one of the challenges and opportunities for the USAID Agribusiness Project.

Given the prevailing uncertainties with the newly formed Serbian government after the May 2008 election, the beef industry stakeholders have decided to refrain from direct involvement in advocating solutions to their trade policy issues with the Serbian government. Instead, they have recommended that the project promote business to business (B2B) contacts for their processed red meats, better local marketing outlets for their small and medium-sized processors, and improved exports to growing markets in the Balkans and Russia.

The project is actively following up with B2B contacts at international trade fairs and organizing trade policy activities for the new Serbian government to address. Support for building trade linkages and increasing exposure to outside markets through participation in fairs will also be focuses for work with this level of the sector.

## **2 SUBSECTOR MARKET CHANGES AND TRENDS**

In the past five years, beef exports have risen substantially, going from a very low base of virtually nothing in the year 2000 to 8,000–9,000 tons, or over \$30 million annually, during 2006–2007 (Table 2). Although the EU import quota of 8,700 tons often gets the most attention in the press, for the last two years 75 percent of exports have officially gone to Macedonia, which buys over 4,000 tons annually, and Montenegro, which buys about 2,000 tons annually. There are trade reports indicating that 25–75 percent of these Serbian beef exports may actually end up in Albania and Kosovo. However, since this trade is largely clandestine, it does not show up in official data; many consider these reports exaggerated, and they are unquestionably hard to verify.

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<sup>3</sup> “Stratification” refers to the level of specialization among producers, with specific producers producing a specific product along the value chain for the industry—for example, calf production and rearing, 120–250kg production, and fattening.

**TABLE 2: SERBIA'S EXPORTS OF FRESH BEEF (ITC NO. 0201), BY MARKET, QUANTITY, VALUE, AND PRICE 2001–2007**

Exported Value (\$1,000s)							
Importers	2001	2002	2003	2004	2005	2006	2007
World	\$1,963	\$1,074	\$1,806	\$6,729	\$9,408	\$31,040	\$38,511
Italy	\$13	\$0	\$1,124	\$4,117	\$6,578	\$7,147	\$9,935
Greece	\$0	\$0	\$682	\$527	\$225	\$2,540	\$2,374
FYROM Macedonia	\$1,950	\$1,074	\$1,229	\$2,085	\$2,605	\$15,110	\$14,870
Montenegro*	n/a	n/a	n/a	n/a	\$0	\$6,171	\$11,332
Morocco	\$0	\$0		\$0	\$0	\$44	\$0
Netherlands	\$0	\$0		\$0	\$0	\$28	\$0
Quantity (Tons)							
Importers	2001	2002	2003	2004	2005	2006	2007
World	870	399	421	1,793	2,210	8,201	9,095
Italy	6	0	212	851	1,268	1,287	1,724
Greece	0	0	209	164	61	624	565
FYROM Macedonia	863	399	472	778	882	4,476	4,000
Montenegro*	n/a	n/a	n/a	n/a	0	1,792	2,806
Morocco	0	0		0	0	13	0
Netherlands	0	0	0	0	0	8	0
Price (\$/Kg)							
Importers	2001	2002	2003	2004	2005	2006	2007
	Price \$/Kg	Price \$/Kg	Price \$/Kg	Price \$/Kg	Price \$/Kg	Price \$/Kg	Price \$/Kg
World	\$2.26	\$2.69	\$4.29	\$3.75	\$4.26	\$3.78	\$4.23
Italy	\$2.17	n/a	\$5.30	\$4.84	\$5.19	\$5.55	\$5.76
Greece	n/a	n/a	\$3.26	\$3.21	\$3.69	\$4.07	\$4.20
FYROM Macedonia	\$2.26	\$2.69	\$2.60	\$2.68	\$2.95	\$3.38	\$3.72
Montenegro*	n/a	n/a	n/a	n/a	n/a	\$3.44	\$4.04
Morocco	n/a	n/a	n/a	n/a	n/a	\$3.38	n/a
Netherlands	n/a	n/a	n/a	n/a	n/a	\$3.50	n/a

Sources: ITC Calculations based on COMTRADE's statistics. \* Montenegro became independent only in 2006.

Some encouraging developments in recent years reflect both external and internal support for the industry. During the last two to three years, there has been large-scale foreign direct investment (FDI) of over €100 million due to the privatization of several large beef slaughterhouses and state-owned agrokombinat farms (the biggest being Carnex SA/Corp. in Becej, Vojvodina). In addition, there has been new investment in completely new and or renovated meatpacking plants (the largest being Big Bull

SA/Corp. in Sombor, Vojvodina), which are integrated with large herds of up to 5,000 head.<sup>4</sup> The Serbian government and the Ministry of Agriculture, Forestry and Water Management (MAFWM) have subsidized<sup>5</sup> imports of purebred cattle and genetic imports<sup>6</sup> to improve bovine genetics, with the stated objective of filling the 8,700-ton EU beef quota for Serbia and facilitating the boosting of exports to other nearby export markets (such as Bosnia, Macedonia, and Montenegro). In addition, while Serbia has had two EU-authorized slaughterhouses eligible to export beef for a number of years, the Baby Beef Producers Association has recently facilitated an increase to five slaughterhouses with an EU export license certification under Serbia's annual quota of baby beef.

The relatively new Baby Beef Producers Association has heavily lobbied the Serbian government for the resumption of higher Serbian government export subsidies so as to compete on a more level playing field with Croatia and most EU beef-producing areas. Nevertheless, the majority of the trade data reflect the fact that Serbia is still competitive in neighboring Balkan beef markets, even vis-à-vis the heavily subsidized beef markets of the EU and Croatia, which is funded by the EU's Stabilization and Association Agreement (SAA). Serbia's annual exports to Macedonia and Montenegro are about 4,000 and 2,000 tons respectively, while its exports to Italy and Greece come to about 1,500 and 500 tons, respectively. This is true even though the appreciation of the Serbian dinar (RSD) exchange rate vis-à-vis the euro has been adversely affecting the meat export industry's competitiveness.

However, although the big cattle farms and meatpacking plants began to import young bulls for feeder cattle in relatively large numbers in 2006 and 2007, the industry during late 2007 and the first half of 2008 have curtailed further investments and have largely been in a "waiting mode" because of political uncertainty, high interest rates, and the appreciation of the local currency. The large beef agribusinesses often find the Belgrade market to be more profitable than the export market, largely because of the exchange rate. Therefore, until the Serbian government's short-term agricultural subsidies and exchange rate trade policies are adjusted to facilitate and support exports, export promotion is now on hold for most beef exporters, since the industry claims that it has a difficult time competing with Croatian production and the export subsidies that Croatia receives for EU markets.

### **3 REASONS FOR WORKING IN THE SUBSECTOR**

#### **ADVANTAGES OF SERBIA'S NATURAL RESOURCE BASE**

Serbia's beef industry has long had a comparative advantage in its natural resource base and conditions for beef and dairy production, with fertile land available for both natural and cultivated pastures, as well as for the production of relatively cheap grains and animal feed products. The country still retains these advantages, but with the costs of fuel and farm inputs rising, the traditional low prices for grain are under increasing pressure.

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<sup>4</sup> The Vindjia Dairy Group from Croatia is investing about €50 million in dairy and beef production for 2008, whereas Imlek and the baby beef association have already invested over €50 million in modifying their five major slaughterhouses and meatpacking plants to come up to EU standards after all the Serbian plants were decertified by the EU in early 2006. Much foreign and domestic investment has concurrently been going on at the farm level, improving cattle farm facilities and enlarging cattle herds.

<sup>5</sup> See summary outline of Serbian government subsidy program for the beef sector in Annex 2.

<sup>6</sup> The Serbian government is subsidizing up to €500 per head of purebred imported cattle for some poorer municipalities (subdistricts).

### **Land Availability**

Not all of the land potentially suitable for raising livestock is in use. Most of the state-owned enterprises (SOEs) and socially owned cooperatives (SOCs) have been privatized, but the Agricultural Minister claimed in March 2008 that many large tracts of lands—amounting to about 200,000 hectares of prime farmland—were not being used because of ownership issues and/or SOCs' being bankrupt and unable to manage the lands. Foreign and most domestic business avoid investing in most of these SOE and SOC landholdings because of the old cooperative workers' "rights" of ownership of the cooperatives' assets. Moreover, those assets are largely just the land now, since most of the SOE and SOC farm businesses are bankrupt, the buildings dilapidated, and the equipment unusable. Nevertheless, good-quality land for livestock production is available, and more and more commercially oriented farms and larger family farms are securing this resource. This is more evident in the northwest of the country.

### **Rebuilding of herds and processing plants**

Although, as mentioned earlier, Serbia's beef sector is now at a disadvantage in EU export markets compared with Croatia and other countries which receive dramatically higher government subsidies, the Serbian beef industry may still be well positioned for long-term growth. The reason is that the Serbian government liberalized cattle imports in 2005 and subsidized imports of breeding stock,<sup>7</sup> which led to the industry importing about 5,000 purebred cattle, valued at \$10 million, for rebuilding the herds. This is a record high since the heyday of the beef export boom of the 1970s. At the same time, three new beef processing facilities received much-needed private sector investment and accreditation by the EU to export beef. In addition, the only two plants licensed by the EU to furnish beef exports from Serbia during 2002–2005 were renovated and modernized, including receipt of HACCP certification; their plants had been briefly decertified in early 2006 by the EU Veterinarian and Food Safety Service.

### **Breed structure adapted to local conditions**

Under the former Yugoslav regime, the predominant breed was the Simmental, which has two main variants: one for beef and the other dual-purpose (dairy/beef). Even today, the greater part of the foundation stock for the beef industry are either Simmental breed, with its two variants; Holstein dairy cattle; or some cross or mix of the two breeds. Without any true beef cattle breed in Serbia, red meat production is directly tied to the dairy industry in Serbia. These local breeds are nevertheless well adapted to the management and environmental conditions in the country, and they can significantly improve their performance and productivity with better nutrition and management. This situation offers an opportunity for the project to obtain quick results by helping selected beef producers improve productivity.

## **CONSTRAINTS AND OPPORTUNITIES**

To capitalize on its potential competitive advantage, the beef industry needs to further examine its production systems, both at the commercial family farm level and at the corporate agribusiness level. It should investigate ways to maximize economies of scale among the many smaller-scale producers. It also needs to encourage specialization and segmentation in the industry among producers and develop a focused production for specific markets, such as regaining share in the baby beef market, gaining greater presence in and a larger share of the Halal market, and entering the beef market for hamburgers. These interventions can be supported by the project by engaging in focused activities at specific points in the value chain, as shown in Annex 2 (Livestock Sector Workplan).



### **Technical and monetary constraints and opportunities**

Serbia lost its position as a significant beef exporter in the 1990s due to trade sanctions, regional conflict, regional breakdowns of supply and market chains. However, just as the export industry was beginning to revive, new political risks and changing EU and Balkan country subsidy systems have again put the baby beef industry on a cautious, “wait and see” footing. Thus, after making large investments during the preceding two years in new meatpacking plants and acquiring improved cattle genetics, the meat processing and packing industry representatives are highlighting their reduced profit margins for exports.

The adoption of new technology and about €100 million in investments by the private sector and regional investors in new and renovated beef processing plants show that they expect financial returns in the short to medium term, with a growth in cattle-fattening operations from more domestic and imported cattle. Since Serbia’s cattle industry has a relatively low calving rate in comparison to other European countries, the country could readily boost its production by 100,000 calves by improving its artificial insemination (AI) and veterinary services. Veterinary services currently hold the monopoly on the provision of AI services, and this is something the service is reluctant to change. This affects the approach the project may follow: support to agribusiness service providers and strengthened and improved embedded services among the key stakeholders provide critical entry points.

Earlier reports indicated that the market price was not a problem, since it covered the cost of production, rising interest rates, and an annual 10 percent to 12 percent inflation rate. However, the recent appreciation of the Serbian dinar against the euro has made it less profitable to export baby beef than in earlier years. Margins in the meat-packing plants have been narrowed, but larger cattle farmers are still reporting to the project that they have positive margins on their beef enterprise operations, are making money, and are expanding their herds. Unfortunately, partly because of the government veterinary service’s AI monopoly, the small and medium-sized cattle farms suffer from lower fertility and calving rates, affecting profitability.

### **Opportunities in the Halal market**

Export data and trade reports indicate that the fastest-growing segment of the industry is for Halal beef going to Macedonia and Montenegro, where much of it is transshipped to Albania and Kosovo.<sup>7</sup> In addition, the Halal certification authorities in Belgrade have had repeated requests and have received large payments to certify plants for export of Halal beef to Muslim communities in France, Germany, and Albania. Two Muslim organizations certify foods as Halal in Serbia. The larger is under the traditional Mufti of Belgrade, while the other, which is newer and smaller, is under the Mufti of Novi Pazar.

One problem with Halal certification is that most Serbian beef plants do not keep separate processing lines for beef, pork, and mutton; the lack of controls for keeping pork from mixing with beef is a legitimate concern. However, our project has been in close contact with the Belgrade Mufti’s Muslim Society of Serbia, which has recently given Halal certification to about 30 food plants (mostly small and medium-sized enterprises), including several meatpackers. The high cost of Halal certification has been widely discussed in the press. On the other hand, some exporters report that the Belgrade Mufti’s Halal beef certificate costs €0.10 per kilogram, while they receive €1.0 more/kg with the certificate. Thus, this does not seem to be too high a cost for the industry, if they continue to pay for the branding and Halal certification.

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<sup>7</sup> These data are largely taken from the ITC calculations on COMTRADE. See <http://www.intracen.org>.

## DEFINITION OF THE SUBSECTOR

In examining the sector, the project found significant variations among data from different sources, and the reliability of data in the subsector is still limited. This is likely compounded by the fact that until relatively recently there has been no national registration and identification livestock system in place. Nevertheless, in the absence of any sources of real data besides the Serbian government, the assessment relies on the official data, which are assumed accurate, with two exceptions. One is the final destination of many exports, such as live cattle exports “to Bosnia” that end up in Croatia; the other is the likelihood that the national cattle herd has been increasing in size for the past few years, as discussed in the section on trends in the size of the cattle population, below.

Identification of the subsector covers all beef produced in Serbia, as well as imported beef. Overall, however, little beef is imported, as the Serbian beef market is protected from import competition via animal health restrictions. Official import data show 0 tons of fresh and frozen beef imports for consumption, although some beef packinghouses complain of illegal imports of Argentine and Brazilian beef. Live cattle that are imported through official channels are all classified as purebred for breeding. However, these may include some cattle for fattening which make their way into the slaughterhouse chain, since purebred cattle receive subsidies.

Many exporters, importers, and international experts report that Serbian beef is best known as Class 1 (highest quality) baby beef for export, which often earns higher prices (€4.5/kg sold as hindquarters) Class 2 or 3 baby beef, usually from Holstein bulls from the Netherlands, generally fetches €4.0–€4.2/kg.<sup>8</sup> The project obtained a mixed picture of the demand for the Serbian baby beef. Serbian exporters claim that demand is very inelastic because it is widely used to blend with beef from other sources: in Italy and Greece, Serbian baby beef is traditionally mixed in with other veal and baby beef meat cuts to give the overall blend more flavor. However, other sources state that beef consumption is very price-sensitive. They assert that beef for such blends can be supplied using Simmental cattle in Croatia (with its higher SAA-financed subsidies) and EU-subsidized Simmental/Fleckvieh baby beef from Austria and Germany. They add that consumption in Europe is declining because of the increasingly rising food prices that are causing consumers to cut back on their more expensive meat purchases, or to eat out less in the more expensive restaurants that serve this beef.

Nevertheless, Serbia has continued to export about 1,800 tons of baby beef to Italy and 800 tons to Greece over the last couple of years. However, costs of production are now rising with the overall food price rises, and Serbian baby beef producers are complaining that their business is much less profitable than it once was as they face difficulties competing with the higher subsidies given in Croatia and EU countries for baby beef (see beef premiums in Chapter 6, Table 10). Because of competition and softening demand, the Serbian exporters are having problems negotiating higher prices for exports to compensate for their rising costs.

Most of the beef supply in the United States and Europe comes from young Holstein bulls, while the older Holstein cows are processed into hamburger. The demand for meat processed into hamburger in Serbia is growing rapidly, although still very much supplemented by the demand for ground pork used in making the traditional *pljeskavica*. However, McDonald’s restaurants are often short on regular beef hamburger meat, while other consumers of pure beef hamburger and milled meat, such as the Halal beef sausages markets in Southern Serbia’s Sandzak area, which is 90 percent Muslim, also often need more beef.

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<sup>8</sup> Midsummer 2008 prices.

Approximately 6,000 tons of Serbia beef is exported annually to Muslim markets in Macedonia and Montenegro (from whence it is often exported again to Albania, Kosovo, and Bosnia). This niche market for Halal could be developed further. Expanding exports of beef with the Halal certificate directly to Albania and to Muslim parts of Bosnia may boost value-added sales, since most of this meat now goes as half- or quarter-carasses, as opposed to boxed beef or retail vacuum packs.

Reportedly, there are ready outlets and high demand for Halal beef among the Turkish communities in Germany and among North Africans in France, according to beef exporters certified for Halal.

In summary, the beef subsector has the potential to further exploit the domestic market for hamburger, the domestic and regional Halal trade, and the baby beef market for export. The East European and Russian markets are promising, provided quantity and regularity of supply can be achieved.

## PRODUCTION

### Trends in the size of the cattle population

Following the trends in the region and in the EU, farm profiles and structures are changing, with increasing consolidation of farm parcels into larger production units and development of a growing and more commercial sector in these transition economies. Cattle farms are now said to have, on average, 10 to 20 cattle in Central Serbia, 15 to 25 cattle in Vojvodina, and 5 to 15 cattle in Southern Serbia. Most of these larger, commercially oriented farms are registered and do not include the informal sector.<sup>9</sup>

Total cattle numbers in Serbia have suffered some declines since about 1990, for a number of reasons. During the 1990s and the period 2000–2005, dispersions of cattle occurred to former members of socially owned cooperatives and via sales of the large herds from the state-owned agrokombinats. Worker-owned cooperatives have not worked satisfactorily for well over five years. Most trade sources state that the large farmers took the better cattle from these farms, but most were lost during the years of economic crisis.

Also, the small subsistence farms, which are particularly predominant in the South and other remote and marginal regions, are quickly exiting the cattle business. Many are being consolidated into larger farms for economies of scale, if not outright abandoned in more remote areas. The 2007 summer drought accelerated this process, with many of these small-scale farmers taking their cattle to regional markets or selling to neighbors or local abattoirs.

In addition, fewer oxen are used as draft animals, a trend which has tended to distort the picture. It is noteworthy that the last census in 2002, and subsequent projections based upon it, did indeed capture the loss of animals used as draft animals (see Table 3).

**TABLE 3: SERBIAN CATTLE NUMBER AND HEIFERS IN CALF, 1999–2007**

Year	Number of Cattle				Number of Cows Used as Working Animals	Percent of Cows and Heifers in Calf	Percent of Cows Used as Working Animals
	Cows	Heifers in Calf	Cows and Heifers in Calf	Total			
1999			826,000	1,283,000	76,000	64.38 percent	9.20 percent

<sup>9</sup> Source: Imlek, Opto International, and estimate from other trade sources.

2000	759,484	57,854	817,358	1,246,226	69,423	65.60 percent	8.50 percent
2001	733,447	53,676	787,123	1,162,035	64,805	63.20 percent	7.90 percent
2002	699,415	52,985	752,400	1,128,245	63,054	60.40 percent	7.70 percent
2003	677,559	62,672	740,231	1,112,164	52,545	59.40 percent	6.40 percent
2004	680,692	61,321	742,013	1,101,951	25,955	59.50 percent	3.20 percent
2005	672,313	48,246	720,559	1,079,020	22,628	57.80 percent	2.80 percent
2006	670,000	60,000	720,000	1,106,00	20,000	59.00 percent	2.7 percent
2007	675,000	62,000	740,000	1,150,000	16,000	60.00 percent	2.0 percent

Source: Ministry of Agriculture and Reported by Department of Statistics in Census Office.

According to Serbian government statistics, the country's cattle population has not changed significantly since the 2002 census (see Table 1). However, these statistics, according to members of the industry, are somewhat suspect. Assistance was provided to Serbian Ministry of Agriculture (MoA) through two EU-funded projects for the implementation of cattle identification & registration system. Ear tagging of cattle first started in 2005 and according to the MoA, by 2007 majority of cattle (some 90%) had been ear-tagged.

Even though the 2002 agricultural census was relatively good, critics state that it had only a 2 percent sampling basis in many areas. One important problem is estimating the size of the smaller cattle farms: many of these are still in the process of registration (unless they are registered, they are not eligible for Serbian government/MAFWM subsidies). These sources also maintain that since 2004, large cattle producers with over 50 head have been increasing cattle numbers by about 5–20 percent annually. EU sources indicate that they will require another census before Serbia is allowed to enter the EU because of its known “carrying capacity” for large dairy and beef cattle herds in Vojvodina and in the central farming areas supplying Belgrade.

### **The rise of larger farms and the trend toward integrated production**

Overall, small farms, with 1 to 10 cows, are going out of business at the same rate that the large farms are getting bigger. The rapid consolidation of these small farms into larger farms is more than offsetting the decline in cattle numbers among small farmers. With the larger farmers able to pay for better veterinarian services, they are also seeing that it pays to feed more grain and feed supplements to their cattle, even though the cost of feed has risen. In addition, the larger farms are adopting improved management practices and taking measures to mitigate previous poor land management and farm enterprise practices. These bigger, better managed farms have improved productivity indexes, such as a higher calving rate: more of them are approaching a rate of 80 percent, compared to the national average of 65 percent.

In addition, there is growing cooperation among producers and improved networking and linkage with the processing sector, evident by forward sales contracts with the larger slaughterhouses. As the cattle industry is following the universal trend of consolidating from small into larger farms, the more efficient producers are better able to make market linkages. This is reflected in the fact that there are now better linkages between the cattle farmers and the five large Serbian meat-processing plants, which have heavily invested in renovating and building new meat plants.

Although cattle producers are somewhat hesitant to work together in the same working groups with the meatpackers, they can make forward contracts for sales to the meat plants. This integration has boosted production via the sales channel starting from the larger cattle farms through the larger slaughterhouses, reflecting the decline in small cattle farms and in cattle supplies going through the small non-EU certified slaughterhouses.

In discussions with the Baby Beef Producers Association, the project has learned that some of the large slaughterhouses have an integrated production system with their own herds and farms, which allows economy of scale and improved supply chain management. While these are still the exception, several of the larger slaughterhouses are adopting this system of production. Association members mention three herds of over 5,000 head of Simmental and five herds of 1,000 to 5,000 head, several of which are owned by the large slaughterhouses. There is a potential opportunity for the project to engage with the larger stakeholders, tackle competitiveness through their operations at the highest level, and assist them in developing links further down the chain, as already mentioned in support of trade business-to-business facilitation in Chapter 1.

There is little information about this vertical integration, but it appears to cover about 15–20 percent of the current market and is growing. (How much it will continue to grow is unclear, given the uncertainties about Serbian government trade policies for supporting the meat industry.) In addition, reports of imports of small feeder calves for fattening and re-export as baby beef show that these investors are well aware of supply chain problems and feel assured that they would receive more cattle and enough meat to make their investments pay off. The approach of importing calves for fattening is not expected to dominate the market, but if it grows to 10–20 percent of the annual production, it could affect prices (i.e., increase beef supplies and lower prices) so that Serbia may become more competitive. Nevertheless, most of the beef is expected to come from the existing herd.

Unfortunately, these more integrated operations are often somewhat reluctant to give details of their farm enterprise operations because of their concerns about being targeted for inspection for 100 percent compliance with the new Serbian government and EU regulations. They are now struggling to invest more money into their plants to meet EU standards. Although this argument about meeting EU and new Serbian government standards may be disingenuous, there is little doubt that the meat processors are experiencing a cost-price squeeze on their margins, since their sales price for baby beef has remained at €4.0–4.5/kg for two to three years, while feed costs and live cattle prices have jumped by 50–100 percent over the last year. These increases are due to rising fuel, forage, and grain production costs, compounded by the recent drought.

The baby beef industry has repeatedly requested the Serbian government to bring their level of subsidies up to those found in Croatia, but the MAFWM has replied that it does not have the budget to pay for it, and the Serbian government limits subsidies to farms with between 3 and 100 head of cattle.

Smaller, isolated markets, such as mountainous areas in extreme southern, western, and eastern Serbia, are beginning to experience the consolidation of beef and dairy operations to a large degree. The data on beef production by regions, as seen in Table 4 below, show that beef production in central and southern Serbia is declining, with most sources stating that the reason is the small farmers going out of business in the southern and more remote areas. Although there are no data on the number of farms with larger numbers of animals, most claim that about one-third of the farms have over 15 head of cattle, and the other two-thirds have under 15 head and are going out of the cattle business. The smaller farmers going out of the cattle business are either retiring and moving to the cities to take other jobs, or working in the new larger farms and/or dairy and meatpacking facilities. Vojvodina, by contrast, is holding its own as cattle farms are getting larger in areas better suited to larger commercial production, and this seems to be partially offsetting declines in the number of smaller farms.

**TABLE 4: BEEF PRODUCTION IN SERBIA BY REGIONS 1999–2006**

Beef Production in Serbia, 1999–2006								
Year	1999	2000	2001	2002	2003	2004	2005	2006
Beef Meat	1,000s of Tons of Production							
Total	97.0	103.0	93.0	97.0	95.0	93.0	90.0	83.5
Southern and Central Serbia	74.0	81	72.0	75.0	73.0	71.0	69.0	60.7
Vojvodina	23.0	23.0	21.0	22.0	22.0	23.0	21.0	22.8

### Possible project interventions to improve farm practices and raise production

By introducing and encouraging the adoption of improved management practices, better veterinary care, and upgraded AI practices at the producer level (raising the calving rate from 65 percent to 85 percent), the project can facilitate the introduction of over 100,000 young calves onto the market for meat output relatively quickly. This would involve follow-up support with the MAFWM Veterinarian Services and new privatized veterinarian service providers, support which may take the form of assistance to agribusiness development services (ABDS) providers and support for delivery of technical service packages to producers and producer organizations. This would encompass, among other topics, issues of animal health, animal welfare, nutrition, forage production, animal housing, reproduction, and total herd management practices.

This package of measures needs to be mapped out and agreed on with ABDS providers. Delivery should be made on an agricultural-year basis and supported through seminars, workshops, practical demonstrations, and a series of model farms and demonstrations units that can be tracked over the life of the project. A first step in the process—a series of seminars and workshops targeting specific technical issues of beef production—has already been successfully launched by the project.

## 4 THE MARKETS

### THE DOMESTIC MARKET

Cattle sales have slowly dropped over time, resulting in the shortages of the best meat, loins, or “biftek” often noted in consumer markets. The domestic market takes about 85 percent of production, with higher-quality fresh meat, sausage, and *prsut* (cured beef loins) being exported. Official statistics show that about 84,000 tons of beef are produced, which yields some of the lowest levels of beef consumption in Europe. Even in countries of the same income levels, this is well below average, and Serbian consumers eat more pork and poultry to make up much of the difference. The recent high prices of beef also contribute to consumers’ sourcing poultry as their meat source. While prices went up slightly after the summer drought of 2007, this was offset by some distress selling caused by the shortage of feed, fodder, and pasture. Despite the distress selling, the higher-priced “biftek” cuts of beef have almost always been in short supply: an average consumer has to go on certain days to the best markets to get them, and even the preferred customers for meat, the restaurants, often are short of “biftek.”<sup>10</sup>

<sup>10</sup> Per communication from B. Emerson, according to sources in the meatpacking plants and supermarkets.



On the positive side, the move toward the larger Holstein and Germanic Simmental/Fleckveih cattle has already started to boost meat output per animal, so that supplies are increasing, through better meat and fat deposition and improved killing-out percentages. Unfortunately, the rate of growth is still only about 2–4 percent annually, according to industry sources. However, the rate could be relatively easily increased by the previously discussed measure of raising the calving rate by 10 percent, bringing it more in line with EU production standards.

## **THE EXPORT MARKET**

After dropping to virtually nil in 2000, exports have progressively grown since 2003, rising to 9,095 tons to the world market in 2007 (see Tables 5–8). Macedonia and Montenegro are main regional markets in the last two years. Exports were disrupted in 2006 when the two plants authorized to export to the EU plant were decertified by EU Food and Veterinary Office inspectors. However, after these plants renovated their production lines according to new EU standards, and achieved HACCP and ISO international certification, Serbian exports again began to rise in late 2006. As mentioned earlier, the Baby Beef Producers Association then facilitated EU export license certification for three additional slaughterhouses under Serbia's annual quota of baby beef. All exports to the EU are from these five plants. However, according to members of the Baby Beef Producers Association, the larger part of exports to Macedonia and Montenegro are supplied from the smaller plants in Central and Southern Serbia that have non-EU export certificates.

In 2007, exports have grown by about 14 percent over 2006 and predictions for 2008 and 2009 are for 10,000 to 12,000 tons of exports worldwide annually. These estimates are tenuous at best because of the new situation with the rapid appreciation of the Serbian dinar, the elimination of the 10 percent and 20 percent (depending on tariff classification) export subsidy, and the reduction of Serbian government export subsidies to CEFTA countries taking effect in late 2007. On the other hand, some trade sources claim that beef prices have risen so sharply overall that Serbian beef exports are competitive even with their higher prices.

Political considerations distort some of the trade statistics. For many years, Albanian and Kosovar meat trading companies have been reluctant to purchase directly from Serbian suppliers or to accept the Serbian export papers normally used via marketing channels in Macedonia and Montenegro. Thus most traders report that a high percentage of the beef going to Macedonia (and some of what goes to Montenegro) ends up in Kosovo and Albania. According to some accounts, it is unlikely that either of these two closely related markets will become self-sufficient in beef production in the foreseeable future.

Serbia could better exploit the situation via its small Serbian-Bosnian Muslim slaughterhouses in the Sandzak area (along the Kosovo and Montenegrin border) and its Serbian-Albanian meat plants in the Presevo Valley (along the Kosovo and Macedonian border). However, these small meatpackers report that they sell all they produce and cannot yet compete with the larger Serbian meatpackers sending beef to Macedonia for reshipment to Kosovo and Albania.

Some sources allege that Serbia's Simmental cattle continue to move onward to Croatia, and it is true that the borders with the Serbian Republic of Bosnia (which border both Serbia and Croatia) are very porous, and that clandestine shipments are a tradition for many working in these border areas. However, neither Bosnian export data nor Croatian import data (via International Trade Commission trade reports) show such cattle movement. The majority of the people raising cattle say that there is a booming market in

importing cattle into Bosnia for Halal slaughter to produce beef, and that allegations about large numbers of Serbian cattle going to Croatia seem to be overstated.

In spite of the short-term negative factors, Serbian beef exports are expected to reach the 8,700-ton EU quota level during 2010 to 2012. Pessimistic observers note that it took many years to build up cattle herds in the United States and most of Europe. Nevertheless, the Serbian Government is responding to pressure from the industry and chamber of commerce to promote imports of better-quality registered cattle and cattle semen, leading to higher meat (and milk) output. In addition, the fertility rate is being pushed up by better service suppliers and private veterinarian services.

Russian importers have approached the Serbian meat industry and have repeatedly requested supplies. Import requirements for the Russian market are much less demanding than those for the EU, so the industry has begun to build facilities and import cattle from Hungary, Austria, and Germany to build up the cattle herds for export.

Beef imports have not been allowed into Serbia since 2002 in order to protect local market from the potential of introducing bovine spongiform encephalopathy (BSE). (see Table 5).

**TABLE 5: BEEF IMPORTS INTO AND EXPORTS FROM SERBIA 2001–2006**

Beef Trade	Units	2001	2002	2003	2004	2005	2006	2007
International Trade in Quantity, Price, and Value								
Imports	<i>Kg.</i>	133,003	148,472	0	0	50,771	0	0
	<i>US\$/kg</i>	\$0.80	\$1.52			\$1.17		
	<i>US\$1,000s</i>	\$106.616	\$225.300	\$0	\$0	\$59.243	\$0	\$0
Exports	<i>Kg.</i>	870,000	399,000	421,000	1,793,0001	2,210,000	8,201,000	9,095,000
	<i>US\$/kg</i>	\$2.26	\$2.60	\$4.29	\$3.75	\$4.26	\$3.78	\$4.23
	<i>US\$1,000s</i>	\$1,963	\$1,074	\$1,806	\$6,729	\$9,408	\$31,040	\$38,511

Source: ITC Calculations based on COMTRADE's statistics.



**TABLE 6: TRADE BALANCE OF LIVE CATTLE (HTN 0102) FOR SERBIA BY MARKET IN VALUES (EUROS) 2005–2007**

Partners	2005	2006	2007	2007	2007
	Trade Balance in Value	Trade Balance in Value	Trade Balance in Value	Exported Value	Imported Value
<b>EXPORTS and IMPORTS</b>	<b>€1,000</b>	<b>€1,000</b>	<b>€1,000</b>	<b>€1,000</b>	<b>€000</b>
World	-3,177.32	-1,080.22	8,784.91	11,199.96	2,415.05
Bosnia and Herzegovina	0	0	9,448.68	9,448.68	0
Montenegro	0	788.87	1,511.23	1,511.23	0
Israel	0	0	237.11	237.11	0
Croatia	0	0	1.46	2.93	1.46
Europe Other, NES	-359.73	0	0	0	0
Australia	-22.48	0	0	0	0
Netherlands	-2,392.02	-48.56	0	0	0
The FYROM (Macedonia)	0	9.55	0	0	0
United Kingdom	0	0	0	0	0
Germany	-72.27	-640.01	-717.2	0	717.2
Austria	-330.82	-1,190.87	-1,696.39	0	1,696.39

Source: ITC Calculations based on COMTRADE's statistics.

**TABLE 7: TRADE BALANCE OF LIVE CATTLE (HTN 0102) FOR SERBIA BY MARKET IN QUANTITY 2005–2007**

Partners	2005	2006	2007	2007	2007
	Balance in Quantity	Balance in Quantity	Balance in Quantity	Exported Quantity	Imported Quantity
	<b>Tons (= 2.0–2.3 head/ton)</b>	<b>Tons (= 2.0–2.3 head/ton)</b>	<b>Tons (= 2.0–2.3 head/ton)</b>	<b>Tons (= 2.0–2.3 head/ton)</b>	<b>Tons (= 2.0–2.3 head/ton)</b>
World	-1,608	-302	6,138	7,090	952
Croatia			1	2	1
Montenegro		540		1,016	0
Europe Other, NES	-167				
Australia	-10				
Austria	-153	-509		0	678
Bosnia and Herzegovina		0		6,010	0
Germany	-109	-315		0	274
Israel				62	0
Netherlands	-1,170	-23			

Sources: ITC Calculations based on COMTRADE's statistics.

**TABLE 8: ITALY'S IMPORT PRICES FOR BABY BEEF CUTS (CODE020120) FROM SERBIA AND OTHER COUNTRIES 2005–2007**

	2005	2006	2007	2007	2007
County	Price	Price	Price	Value	Quantity
	Euros/Ton	Euros/Ton	Euros/Ton	1,000 Euros	Tons
<b>Total = Average</b>	<b>€3,879</b>	<b>€4,014</b>	<b>€40,603</b>	<b>€581,493</b>	<b>14,213</b>
France	€3,992	€4,431	€4,134	€220,127	53,254
Germany	€3,808	€3,935	€3,937	€201,394	51,157
Austria	€3,968	€4,059	€3,925	€81,414	20,742
Ireland	€3,909	€4,077	€4,426	€25,509	5,763
Belgium	€4,614	€5,185	€5,453	€24,776	4,544
Lithuania	€2,369	€2,591	€2,530	€9,765	3,860
Serbia	€4,184	€4,447	€4,313	€6,900	1,600
United Kingdom	€6,022	€4,702	€5,101	€5,765	1,130
Croatia	€5,017	€5,156	€4,950	€5,162	1,043
USA	€4,940	€5,174	€6,586	€527	80
Romania		€2,610	€3,163	€89	28
New Zealand	€4,175	€6,066	€7,074	€42	6
Canada			€3,659	€22	6
Czech Republic	€3,549				
Denmark	€4,408	€4,679			
Hungary	€3,621	€3,952			
Italy	€3,759				
Netherlands	€4,531	€4,852			
Poland	€2,503	€2,512			
Saudi Arabia		€5,174			
Slovenia	€3,882	€4,220			
Spain	€3,841	€4,628			

Table 9 shows that Serbia is still selling higher-priced meat to Montenegro than Austrian exporters are doing. Some traders believe that the Serbian exporters have better connections with the Montenegrin importers of quality meat for the fast-growing tourist trade, as well as a transportation advantage.

**TABLE 9: MONTENEGRO'S IMPORTED BEEF CUTS (CODE 020120): PRICES, UNIT VALUES, QUANTITIES, AND VALUE 2006–2007**

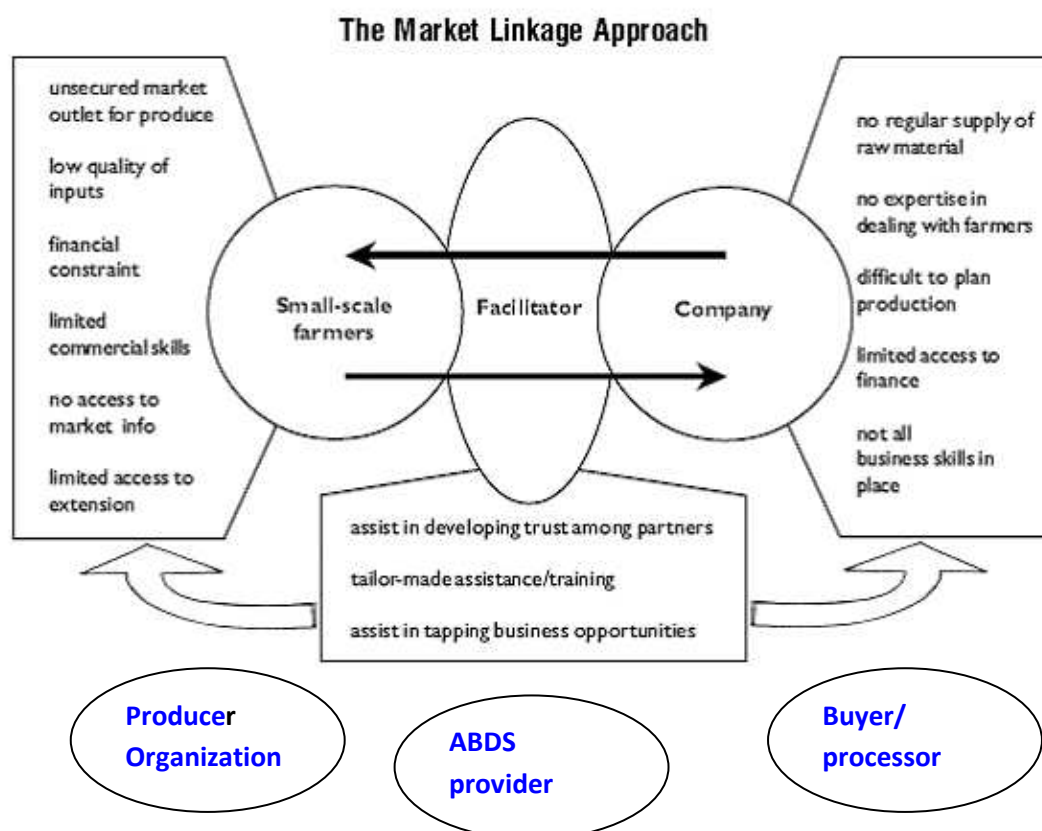
Exporters	2006	2006	2006	2007	2007	2007
	Imported unit value	Imported Value	Import Quantity	Imported unit value	Import Value	Imported Quantity
	\$/Ton	\$1,000s	Tons	\$/Ton	US\$1,000s	Tons
Average/Total	\$3,070	\$7,297	2,377	\$3,689	\$9,522	2,581
Serbia	\$3,359	\$5,602	1,668	\$3,808	\$8,948	2,350
Austria	\$2,391	\$1,695	709	\$2,485	\$574	231

Source: ITC trade data from Government of Montenegro.

### FACILITATING MARKET LINKAGES

A key focus of the project in the sector is the development of more efficient market linkages and/or the recreation of such linkages along the supply chains. To do this effectively requires accurate identification of main players and coordinated interventions among producer organizations, ABDS providers, and the processing industry within the value chain. Core principles of such interventions are outlined in Figure 1 below. The project will support producers through producer organizations to achieve economies of scale and will leverage ABDS providers to deliver activities to enhance competitiveness at the farm and producer organization levels and to facilitate linkages with the buyers (processors and supermarkets).

**FIGURE 1: THE MARKET LINKAGE APPROACH**



Key steps in the process are outlined in Figure 2 below, and while each value chain will have its own peculiarities, the core principles remain similar.

## **5 THE SUBSECTOR MAP**

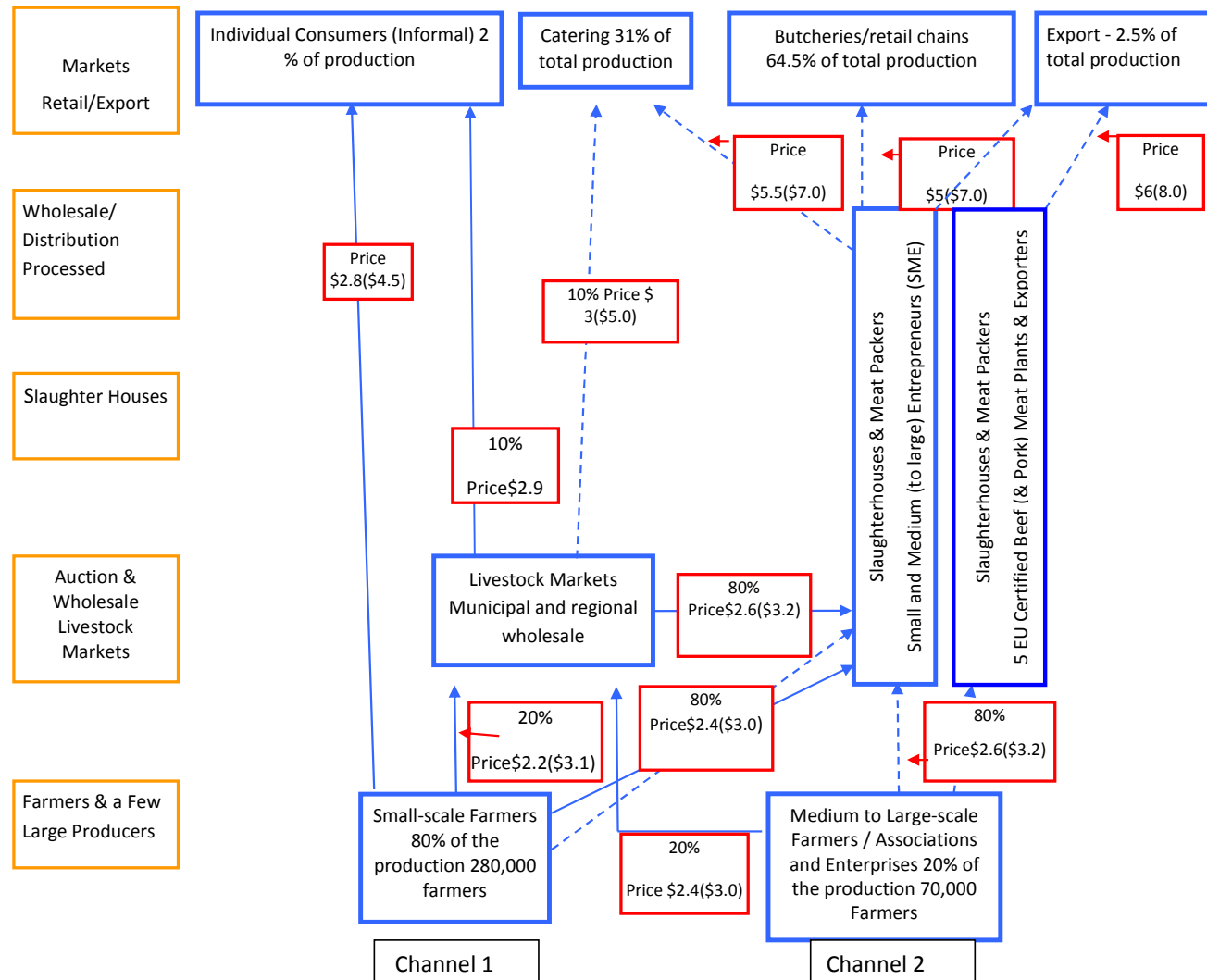
### **DESCRIPTION OF THE OPERATION OF THE SUBSECTOR**

According to Government of Serbia legislation transposed from the EU legislation, all cattle need to be identified and registered. Those that are not may not be slaughtered in any of the registered slaughterhouses. This approach has changed the industry in that the smaller farmers without registered cattle are losing out on markets and governmental subsidies.

Larger farms are beginning to sell directly to the large slaughterhouses and meatpackers with EU export licenses.

The breakdown of the main channels in the marketing process are indicated in Figure 2. This figure identifies the main leverage points available to the project in support of interventions in the beef value chain. The prices indicated in the map reflect June 2008 data sources; those highlighted in yellow have been updated based on information provided during the field mission in September.

**FIGURE 2: BEEF VALUE CHAIN IN SERBIA (MAP)<sup>11</sup>**



<sup>11</sup> The prices reflect June 2008 data sources. Revised prices, updated September 2008, are shown in parentheses.

The MAFWM now give €60 per calf born on a registered farm with a calf that has registered papers, but only up to a total of 100 calves per farm (which hurts the larger farms vis-à-vis their new competitors in Croatia, which has no such limit). In addition, each farm receives about €100 per hectare up to 100 hectares for putting the land into agricultural production, including beef production (but again, the 100-hectare limit places them at a disadvantage, compared with the large Croatian cattle farms that have no such limitations). Croatian subsidies are reported to be €250 or each newborn calf and €200 per hectare of farmland, well above current Serbian (and EU) subsidy rates. Industry members say that Serbian producers' competitiveness suffers not only from Serbia's lower subsidy levels but also from Serbia's high interest rates, which are about twice the Croatian level. (Interest rates run 12–14 percent annually in Serbia, tied to euro exchange rates, compared with 5–6 percent for comparable commercial farming loans in Croatia.)

On the other hand, Serbia has much more suitable farmland for beef production than Croatia does, so even with the larger Croatian subsidies, Serbia should still have a baby beef industry that is three to four times larger than Croatia's.

## **IDENTIFICATION OF THE CHANNELS**

The traditional marketing channels of middlemen buying cattle for cash are becoming less important, with about one-half the current small farms expected to be out of business by 2012. Contractual arrangements between larger farmers and slaughterhouses are cutting out the middlemen and regional sales markets, particularly since the newer packinghouses are paying premiums for quality. Although premiums vary from meatpacker to meatpacker, and depend on the size and reliability of their supplier, they may be 5 percent above the going price for first-class baby beef. However, most farmers claim that they never receive positive premiums, but only get penalized for poorer-quality, older dairy cattle, or cattle with defects. This may help explain why many small farmers sell their live cattle for cash to middlemen who then transport the animals to Bosnia and Montenegro (and transship them to Albanians in Kosovo) for the growing Halal markets of Muslim populations in Bosnia and Albania.

Although prices have been fluctuating widely in the aftermath of the 2007 drought, slaughterhouses are said to offer larger farmers 5–10 percent higher prices than middlemen do. Smaller farmers, however, do not yet seem to be able to capture these higher prices, both because their bargaining power is limited and because they lack access to factoring to pay them cash prices on delivering the cattle to the slaughterhouses (almost all cattle producers have to wait 30 to 120 days after delivery, and small producers often prefer to take a lower price or immediate cash from middlemen, rather than to wait for a higher price from the meatpackers). Some training of small farmers, particularly in how to obtain better credit terms and use “factoring,” could help them obtain better prices, so that they receive their money as soon as they sell their cattle to the larger slaughterhouses—and a higher price to boot.

Market terms do vary widely from meat plant to meat plant and even from customer to customer. While the MAFWM's market information system reports on prices at 18 municipal markets (when the foods, animals, and meats are in-season and available), the reports do not capture the quality differentials or the preferential prices given to longstanding customers working through well-established personal sales relationships. Particularly in the green markets, traders deal with folks that they know over time and reserve the best produce and foods for their known customers. Naturally, the businessmen in the trade are reluctant to discuss their private sales arrangements with outsiders for fear that it may harm what they believe is a favorable sales price arrangement with their customers.

## **POINTS OF LEVERAGE**

The sector map assists identify the following entry points for the project to tap into and points of leverage in the industry:

### **Producer Groups**

Producer organizations, such as Simmental and Holstein breeders' associations and cooperatives, are the main initial points of intervention or entry points for the project. Although these reach only the larger farmers, they account for well over 50 percent of the meat and milk that goes through the formal sector and pay taxes as legitimate businesses. The Project could assist them by facilitating discussions with the MAFWM and lobbying mechanisms.

Upstream on the farms, the project may work with the producer groups, such as the Holstein and Simmental Associations, as well as the network of cattle cooperatives in Vojvodina and Central Serbia. Interventions would include support for registering cattle, facilitating financing, assisting in importation of cows and semen, and securing other locally available genetic materials and inputs for the industry.

### **Industry Groups**

The Baby Beef Producers Association is still an informal group. The association has five large meat slaughterhouses and is affiliated with the other meatpacking plants via the Chamber of Commerce and informal contacts. These processors account for well over 60 percent of the legal beef supply in Serbia. However, the backyard butchers of the informal economy still take a large part of market because people often still buy their meat via green markets or directly from farmers in their rural villages, where taxes are not paid.

Nevertheless, these large and medium-sized meat processors are key entry points for the project. They are logical partners to work with, since they have already made massive investments in processing plants, and contractual arrangements with larger farmers are under negotiation. These larger processors are buying up or renting farmland, and are both importing cattle from abroad and buying up local cattle. Since only about 3–4 percent of the domestic beef supply is exported, it may not prove very difficult to secure the beef that they need to meet demand.

In the meantime, the new packinghouses wish to have the best beef supplies, so that they may need to increase the production of better-quality animals, which is where the project may assist them. Working with the Simmental and Holstein cattle breed associations and the meatpackers' associations, the project can assist the industry to increase yields and productivity so as to lower costs and increase the profitability and quantity of sales to the domestic and export markets. As mentioned earlier, focuses may include improving farm management, boosting fertility rates, encouraging better feeding programs, and the like.

### **Government**

The project will support and collaborate with MAFWM's existing EU-funded program to identify and register all cattle and support the livestock associations providing cattle certification services to farmers.

## 6 INSTITUTIONAL

### SUPPORTING INSTITUTIONS

In reality, there are few supporting institutions. MAFWM has privatized most of the heretofore underfunded regional veterinarian stations (the extension stations in Serbia cover only crops, not animal products). The main supporting institutions are the recently privatized veterinarian stations and the two Faculties of the Belgrade University -Veterinary Medicine and Agricultural Faculty in Zemun, and the Agricultural Faculty of the Novi Sad University. The emerging private sector consultants are being supported by the large dairies such as Imlek and Somboled.

There are discussions between MAFWM officials and the industry about how to better support a growing number of commercial farms. However, it appears that embedded service providers from the slaughterhouses may eventually provide most of the services, since the EU-required HACCP rules and food safety laws mandate “farm to fork” tracking of animals for disease and food safety reasons. This field is very much in transition in this country, and is therefore a point of leverage for the project.

### PRESENCE OF AGRICULTURAL BUSINESS DEVELOPMENT SERVICES (ABDS) PROVIDERS

The development of private sector and embedded ABDS providers is a key focus of project support. Already the project has made significant progress in working through and with the Agrar Kontakt network in the delivery of training and educational seminars and workshops in the livestock sector. There is little available in the way of private business service providers, but this service sector is being developed and facilitated by the project.

A particular problem is the lack of readily available veterinary service providers, especially for small and medium-sized cattle producers in remote areas. Exacerbating this difficulty is the fact that legally, only licensed veterinarians may provide AI services. Hiring full-fledged veterinarians to perform AI is not practical for many small farmers in Serbia. Farmers doing it on their own (usually claiming that they “cannot find a vet in time”) are often fined for it by the local authorities. The fact that AI is often performed by amateurs leads to very low fertility rates and low productivity in Serbia’s small farms, which in turn depresses the overall productivity of the country’s national cattle industry, particularly in terms of calving rates, milk outturn, and average meat yields. It is not necessarily the remit of veterinarians to carry out this service; in most of Europe, AI is carried out by qualified and trained AI technicians—usually members of the private sector, including farmers. It may be more efficient to modify Serbia’s law on agriculture to permit AI technicians to carry out this service in the future.

The agribusiness input supply sector consists of a range of input suppliers providing various farm input products and, in some cases, services. These suppliers sell compound feeds, straight feeds, fertilizers, seeds, feed supplements, pasture and forage crop seed, and certain veterinary products. Some of these also provide product post-purchase support, including technical support in using products. Most of these companies, however, just sell products; the vast majority are merely outlets of foreign firms and are staffed by young salespeople, who do not have the training, knowledge, or incentives to do follow-up services. Although these supply companies may be worked with, it appears to be an uphill battle, as they suffer from huge staff turnover and have very little build-up of long-term clientele. Moreover, even the companies that assist farmers via embedded services largely leave the smaller-scale producers out of the process, seeing them as hardly worth the effort economically.



The larger farmers do receive much assistance from veterinarians, as well as from professors at the agricultural universities who supplement their salaries by working off-campus. These larger farms have been relatively successful in finding new talent to help them out, at a relatively affordable price, but this comes with the larger economies of scale, which usually does not work for the smaller farms. However, this can be addressed by the project by intervening at the level of the producer organizations: dealing with a larger group of smaller producers will allow economies of scale.

The project knows of three cattle semen service providers, representing the Canadians (Semex), the Dutch, and the United States (World Wide Sires). They also provide extension services as embedded services to help sell the semen. However, Simmental breeders going on CRDA/ADF/FLAG study tours to Germany in 2006 found out that the Simmental bulls being selected for them at \$30 to \$40 per straw were considered poor bulls by the German and Bavarian ministries of agriculture and that the average price was US\$5 per straw of semen. Subsequently, the World Wide Sires representatives in Serbia have had new orders for 1,650 doses of U.S. Holstein cattle semen at a cost of US\$5/straw, obtained from three U.S. bulls selected by U.S.-trained animal health professors now working at the University of Novi Sad.

Price and market information is provided weekly by the Ministry of Agriculture. The data shows prices for different sizes of slaughter animals, by regions.

## **REGULATORY FRAMEWORK**

MAFWM maintains the regulatory framework for the cattle industry (Veterinary Law from 2005). The Serbian Government has accepted the new Livestock Law that regulates objective sin the livestock sector, forms of businesses engaged in the sector, breeding programs, etc. and EU compliant Food Safety Law, which will provide for food safety regulations and modeling regulatory framework similar to the EU member states' governmental organizations. Both Laws are now pending adoption by the National Parliament.

After nearly 20 years of isolation, the Serbian market is finally opening up in preparation for joining the World Trade Organization (WTO) and future EU accession. Import restrictions for live cattle were effectively removed in 2006, as the restrictions on using the MAFWM-approved quarantine stations was removed and imported cattle could be quarantined on registered and MAFWM veterinarian-approved farms (which were inspected to confirm that they met EU and HACCP standards. That year, the CRDA/ADF/FLAG program provided the first import of cattle from Austria. The private sector started to import larger numbers of cattle (estimated at about 25,000 head) after the EU-approved slaughterhouses were recertified, following the brief decertification in 2006 noted earlier.

## **EU Subsidies**

The following are the EU subsidies for the beef sector, according to the latest report from the European Commission (EC) Agricultural Office for Livestock. EU member states may choose what percentage of the following schemes they wish to use in subsidizing their beef cattle production (at a cost to the overall subsidy allocation to other farm sectors). Some countries, notably the Netherlands, use their maximum, keeping up to 100 percent of the “suckler cow premium” and up to 40 percent of the “slaughter premium for adult bovine animals,” coupled to make payments to farmers in the sectors concerned. Alternatively, they may retain 100 percent of the “slaughter premium for adult bovine animals” or up to 75 percent of the “special male bovine premium” to make these payments. They may also retain up to 100 percent of the “slaughter premium for calves” in order to make a specific payment.

The EU maximum applicable beef production “premium (subsidy) rates” for bovines are as follows:

**TABLE 10: EU MAXIMUM BEEF PREMIUM (SUBSIDY) RATES**

Suckler cow premium	€200 per head
Additional national suckler cow premium up to	€50 per head
Slaughter premium (adult bovines)	€80 per head
Slaughter premium (calves)	€50 per head
Male bovine premium (steer/bull)	€150 or 210 per head

Following are rates that apply to two member countries, as stated in the EC Directorate-General for Agriculture and Rural Development Directorate’s regulation “D. Direct support, market measures, promotion; D.1 Direct support.” Its “Overview of the Implementation of Direct Payments under the CAP in Member States” (Version 1), as of 1 January 2008, states:

Netherlands 2006: SPS historical

2007 slaughter premium (calves): 100 percent

Slaughter premium (bovine adults): 100 percent

Austria 2005: SPS historical

2007 suckler cow premium: 100 percent

Slaughter premium (calves): 100 percent

Slaughter premium (bovine adults): 40 percent

## **7. SUBSECTOR DYNAMICS**

### **DRIVING FORCES AND SECTOR GOVERNANCE**

The main forces at work in the beef sector are the unmet domestic (consumer) and export demand, the policies of the government, and the process of EU accession (which is part of the government policies’ set of drivers). The industry and all those investments are the primary driving force, as well as the EU trade policy. Both domestic and export demand exceed supply with shortages of available choice or preferred higher-priced beef cuts – with all of the premium “biftek” sold out most days at the best and biggest supermarkets and specialty meat shops. Exporters indicate that they can still sell everything that they can obtain in the neighboring Balkan export markets at a better price than in Serbia.

There is also a shortage other cuts of butchered meat and hamburger. Retail fast food stores report that they can never obtain enough pure beef hamburger meat; international fast food chains would contract for all the additional meat available and do so. The high prices fueled by the short beef supply situation has contributed to a new investments in new EU-certified beef slaughterhouses and beef packing plants. Thus, the rear leg loin muscles or “biftek” of young bulls (which are almost the same as most cuts of baby beef), may improve quality and yields with some technical assistance for meat processors.

### **Market demand**

Overall, the large slaughterhouses and improved dairy processing plants are pushing up the demand for dairy cows for milk, with the young bulls being raised for beef, and the older cows culled out for hamburger meat. In particular, the industry is responding to requests for more baby beef (mainly “biftek” cuts) by the Italian, Greek, and other EU importers, as well as demand for large quantities of beef (especially Halal) from Macedonia and Montenegro.

After 10 years of only two plants being certified as EU-approved exporters to EU countries, five plants had become certified (or re-certified) as of late 2006. In addition, to better meet the demand, there have been record high imports (reportedly 25,000 head) of purebred cattle for breeding. Some businessmen say that 10–15 percent of this total may include young calves imported for fattening and growing out on plentiful Vojvodinan corn, soybean meal, and improved alfalfa pastures.

### **Serbian government policy**

The sector is supposed to be governed by MAFWM and the Ministry of Health for processed food products, such as sausages, *prsut*, and other specialty meats. MAFWM sets the policies and subsidies for the dairy and beef industries, which are intimately intertwined inasmuch as almost all beef comes from Holstein dairy or Simmental dual-purpose meat and milk cows.

### **EU accession**

The drive to become an EU member country has been reported (on and off again, according to which politicians are talking the loudest) as being “on-track” or officially planned for 2012 (but more likely well beyond 2015). This assumes that no new political or other problems arise, such as the issue of non-compliance on turning over indicted war criminals to the International Criminal Tribunal for Yugoslavia, officially cited as stopping EU and Serbian government negotiations on EU accession plans for Serbia. Nevertheless, numerous laws have been proposed in the Serbian Parliament to adopt EU standards, and they are put ahead of other laws needed for the meat industry’s agricultural reforms, such as the new law of cooperatives to reform the old communist-era farm cooperative law still in effect for all legally formed cooperatives in Serbia.

## **8. VISION FOR GROWTH**

### **ACTIVITY PLANS**

#### **Short-term (3–6 months) Impacts**

##### ***Enforce Live Animal Export Restrictions***

The most obvious “quick win” would be to enforce border controls and cut off illegal export of live cattle for slaughter in Kosovo and Bosnia. This would provide enough good cattle for the restructured beef slaughterhouses to better fill the EU export quota and renew Halal beef exports. Obviously, the black/grey market exporters of live cattle to Kosovo and Bosnia buy the best cattle—and pay cash right away—whereas the newly expanded processing plants still (usually) take from 30 to 120 days to pay farmers. The project may work with the industry and Serbian government to pay premiums for quality and foster contractual arrangements so that the farmers will sell to processors.

### ***Import More Beef Cattle and Semen***

After 16 years of trade restrictions, in late 2005 the Serbian government authorized imports of live cattle and cattle semen from the United States. Now that the market is open and following EU standards, the larger cattle farmers, beef packers, and dairies are importing these commodities. MAFWM is also subsidizing imports of large cattle as well as smaller “feeder stock” for growing out/fattening, as well as paying producer premiums (“subsidies”) for beef production on a 10-dinar-per-kilogram basis.

### **Medium-term (1–2 years) impacts**

#### ***Cross-Breed Cattle***

Many veterinarians and animal science professors promote cross-breeding for “hybrid vigor”—for example, cross-breeding the old Simmental mixed breed with the larger Holstein, a process that quickly produces baby bulls much larger than the current mixed breeds. Such cross-breeding produces a quick turnaround, with larger calves grown out in 12 to 24 months. During his November 2007 visit, the U.S. Holstein Association President Doug Maddox said that cross-breeding Simmental with Holstein cattle (U.S. or EU) would usually yield good young bulls capable of gaining 20 percent to 30 percent more meat than using Simmental cattle semen. Both the Serbian MoA and Vojvodina’s Agricultural Secretariat were interested in following the U.S. Holstein and USDA recommendations. Calving has proved not a problem when mixing the bigger Holstein breed with the Simmental baby beef breed.

#### ***Improve Use of Serbian Government and EU Program Support Measures***

There may be quick wins by boosting output in combination with ongoing MAFWM and local government programs. Producers are only partially using the Serbian government subsidies of up to €500 for imported registered cattle, and other special preferential five-year loan programs, with four years of grace. Many producers do not know of these incentives, nor have they worked well together to better use what resources are available (e.g., Serbian government veterinary services and extension stations).

#### ***Export More to Russia***

The Russian market is less demanding than the EU markets, which have strict regulations and requirements even beyond the HACCP and ISO standards, such as the special packinghouse plant design requirements. Moreover, even with the appreciation of the Serbian dinar, Serbian beef exports are still very price-competitive in Russia owing to the 1 percent tariff duty, which provides a unique trade advantage that no other country in Eastern Europe has with Russia. Many meat producers are interested in the Russian market, but the supply has to be ample and regular enough so as to produce a consistent flow of 20- to 24-ton containers; traders have so far had problems doing this. Currently, beef packinghouses are planning to import small feeder cattle to grow out quickly for this market, without serious rules-of-origin restrictions (since most breeder stock comes from Austria and Germany).

#### ***Export More to Muslim Markets***

Like the Russian market, the Middle Eastern market is less demanding than the EU markets. Furthermore, Halal certification of beef from Serbia is recognized in the Middle East. The certification is provided by the Muslim Society of Serbia based in the Belgrade Mufti Jusufspahic’s office, which has 57 imams with Halal certification authority. Exports of Halal beef to Albania (and Kosovo and Bosnia, without Serbian

markings) may quickly replace live cattle exports. Many exporters still lack Halal certification, but this is simple to obtain in Serbia—it is usually considered an easy win. This is already occurring in the Turkovic Packing House in the southern Serbian Sandjak area (predominantly a Bosnian-Serb Muslim area) and exports with value-added sales to Montenegro and Bosnia. Unfortunately, there is much price competition for the large Halal exports to Middle Eastern markets traditionally served by the former Yugoslavian Trading Company and by GenEx, a former parastatal trading company that used to export in the 1970s and 1980s.

### **Long-term (2–5 years) impacts**

#### ***Increase Grass-Fed Beef Production***

The large, integrated slaughterhouses and new larger cattle (and lamb) producers have applied for Serbian government/MAFWM permits to import heavier beef breeds for feeding out for direct-supply contracts with the five EU-certified beef export packinghouses. MAFWM, banks, and industry are quickly providing subsidies and loans to boost beef production to fill the 8,700-ton EU export quota prior to EU accession.

However, most members of the industry have not yet been convinced to invest in these “true beef breeds,” since they are not well known in Serbia. Although some experts state that grass-fed beef is competitive with the good alfalfa pastures in Northern Serbia used for the dairy industry, and the agricultural business development service (ABDS) providers and the agricultural universities report a continual competitive cost impact of grass-fed vs. feed-fed beef, so far Simmental/Fleckveih seems to be the dual-purpose milk and meat breed of choice in the Balkans (and in many Eastern European countries).

#### ***Support Cattle Registration and Certification***

Serbian legislation now stipulates the identification and registration of all cattle—one of the prerequisites for Serbia’s accession to the EU. Two EU-funded projects have delivered significant support to this process (identification of animals and creation/keeping of a registered animal database). This is important in terms of animal health oversight, food safety, and traceability.

At the same time, certification of cattle with breeding records is a well-established practice that is widely recognized as contributing to improving cattle management practices and long-term productivity. Efforts to merge the two databases into a single information unit should help deliver more accurate and detailed data on national herd. This process is currently being initiated within the Ministry of Agriculture and should be strongly supported.

## **9 PROJECT OPPORTUNITIES, CONSTRAINTS, ACTIONS AND EXPECTED RESULTS TABLE:**

Table 11 (below) summarizes the above information, linking market opportunities, constraints, and proposed activities to resolve these constraints, thus describing how the project could help boost the competitiveness of the Serbian beef subsector.

**TABLE 11: PROJECT OPPORTUNITIES, CONSTRAINTS, ACTIONS AND EXPECTED RESULTS**

Major Opportunities	Constraints in Way of Opportunity	Specific Actions	Expected Results
<p>1. Both the domestic market and export markets continue to show strong unfulfilled demand and drive the meat industry to invest in new plants and large farmers to expand herds.</p> <p>2. Serbia has five EU-certified beef export plants and new investors and investments in slaughterhouses.</p> <p>3. The industry is importing better cattle and breeding better and bigger animals that have more high quality meat on them for the export market. For example, the Baby Beef Producers Association's five slaughterhouses are already investing in cattle farms and importing breeding stock and buying calves for fattening, so that demand from downstream in the marketing chain is driving the industry to expand.</p>	<p><b>(a) Supply Shortages and Demand Limitations</b> There are supply shortages of good quality product. In addition, only 2,000–4,000 tons out of 82,000 tons of production is exported. So the size of production, assuming that the Serbian government data are accurate, is not so much of a problem as the availability of high quality beef for export.</p> <p>In addition, the EU may put restrictions on Serbian exports in case of disruption of the animal health situation.</p>	<p><b>(a) Direct Implementation</b> VC Approach for Technical Assistance (TA) and Grants (Primary Strategy)</p> <p><b>1. Export Plants TA:</b> Work with the five EU-certified plants (Stokoimpex/Knjazevac, Cajetina, Big Bull/Bacince, Sombor, Yuhor/Delta/Jagodina, Kolbis/Novi Sad, and Backa Topola) and with those in the process of export certification to boost export and domestic sales. Promote better market linkages with other Balkan states as well as process meat exports to Russia. Improve linkages with local market.</p>	<p>Medium term (1 to 3 years): Increase sales by \$50–\$100 million.</p>
		<p><b>2. Farm Producer Groups:</b> Since all sources indicate that the supply of better-quality animals is a bottleneck, work with large dairy farms and farms specializing in beef cattle on improving supply of quality beef through such means as cattle-fattening operations.</p>	<p>Medium term (1 to 3 years): Boost sales by \$30 million.</p>
		<p><b>3. Producer Associations:</b> Work with nascent Baby Beef Producers Association and breeders' associations to improve yields by contract farming and by importing cattle for fattening and breeding stock.</p>	<p>Medium term (1 to 3 years): Raise sales \$30 to \$50 million.</p>
		<p><b>4. Halal Beef Exports:</b> Restore and expand Halal beef marketing channel of the 1970s and 1980s, lost during the war. Promote and provide assistance in Halal certification, and facilitate linkages with Muslim markets.</p>	<p>Medium term (1 to 3 years): Raise sales by \$20 million.</p>
		<p><b>5 Boost Per Capita Consumption:</b> Work to boost per capita consumption to EU levels, especially those of Hungary and Slovenia, through promotion of locally produced high-quality veal/beef.</p>	<p>Long term (2 to 5 years): Raise sales by \$25 million.</p>

Major Opportunities	Constraints in Way of Opportunity	Specific Actions	Expected Results
	<p><b>(b) Technical Knowledge:</b></p> <p>Somewhat outdated and limited knowledge about beef cattle production systems and the market needs is widespread. There is a strong cultural and traditional use of Simmental as dual-purpose animals, without a concerted effort to specialize and develop breed-specific traits for both dairy and beef. This may have been in response to the previous system, whereby farm enterprises, particular at the household level, operated on the basis of the common misconception that Simmental is a better dual-purpose “milk and meat” breed. In the United States and the EU, Holsteins produce more meat and may easily cross-breed with Simmental for faster-growing young bulls yielding more baby beef and milk.</p>	<p><b>1 ID and Register All Cattle:</b> EU and U.S. regulations require all cattle to be registered for animal diseases control and food safety control. The Project may provide support to the Ministry of Agriculture and the ongoing EU projects dealing with animal identification and registration.</p> <p>Also, the cattle certification process, intended for better quality control, may be enhanced by providing support to the official cattle registration services—e.g., by working with the Serbian Holstein and Simmental Associations. We may work with the Agriculture Ministry and cattle producers groups such as the Serbian Holstein and Simmental Associations.</p>	<p>Short term (6 months to 1 year): Economic impact uncertain.</p>
		<p><b>2 Use Agribusiness Development Services (ABDS):</b> Use ABDS, such as the privatized veterinarian services, to create a sustainable infrastructure and market-oriented farmers and agribusinesses. Concentrate activities on increasing the yields of high quality beef and boosting competitiveness. Use Agrar Kontakt and similar ABDS providers in delivery of package of livestock trainings.</p>	<p>Medium term (1 to 3 years): Increase sales by \$15 million..</p>
		<p><b>3 Training:</b> Start technical assistance for capacity building, including cattle farm management training and “TV Farma” information dissemination on dairy and beef production, soon to widely disseminate new technology.</p>	
		<p><b>4 International Standards:</b> Although five of the slaughterhouses have met EU standards, the sector has a long way to go to meet international standards for beef quality. For example, a campaign may be initiated with the slaughterhouses and producer groups to adopt EU and U.S. cattle producers and meat processing best practices.</p>	<p>Medium term (1 to 3 years): Increase sales by \$10 million.</p>

Major Opportunities	Constraints in Way of Opportunity	Specific Actions	Expected Results
	<b>(c) Credit Utilization</b> Credit is the key factor in most successful cattle operations. Limited knowledge about sources of credits are problems for the industry, with even the largest cattle farms still somewhat unaware of some of the new bank program and MAFWM's loans and subsidies.	<b>1 Credit Facilitation:</b> Work with banks, the Serbian government, and processing plants to make loans available to producers to buy cattle for import, local purchases, and for expanding farm operations.	Short term (6 months to 1 year): Increase sales by \$30 to \$40 million.
		<b>2 Promote Foreign Direct Investment (FDI):</b> Promote FDI in industry, perhaps through the Chamber of Commerce, which is already growing but needs some help marketing Serbia as a good place to invest.	Medium term (1 to 2 years): Increase sales by \$5 to \$10 million.
	<b>(d) Poor Farmer Representation</b> Developed beef industries worldwide usually have cattle producers' organizations to represent them and help improve the business. In Serbia there are two breed associations, the Holstein and Simmental Association, but only the Holstein Association has anything like a national presence. These associations will need to be strengthened in order to gain important advocacy potential and the ability to influence national and local government authorities.	<b>1 Market Information Systems (MIS):</b> Work with MAFWM, AgroNet/Agromreza, and the local information networks to improve the service delivery of information on the cattle and beef markets in Serbia and the subsidies available from the Government of Serbia. Given the poor state of statistics in this industry, perhaps conduct a survey of the industry, or a study within a subsector, with cooperating partners and/or other international donors.	Short term (6 months to 1 year): Increase sales by \$50 to \$100 million.
		<b>2 Institutional Building:</b> Work with producer and processor groups to promote national production and export strategies and have them presented to the Serbian government and MAFWM.	Medium term (1 to 3 years): Economic impact uncertain
		<b>3 Support Trade Policy Discussions</b> and/or roundtables to promote a sound enabling environment with an ability to favorably impact the Serbian government's beef production and trade policies.	Medium term (1 to 18 months): Economic impact uncertain



# ANNEX I. SUMMARY OF BEEF SECTOR LIVESTOCK SUBSIDIES MAFWM

## LIVESTOCK SUBSIDIES

### SERBIAN GOVERNMENT: MINISTRY OF AGRICULTURE, FORESTRY AND WATER MANAGEMENT

#### 1. Regulation on subsidies for genetic improvement of dairy cattle in 2008

This regulation determines conditions and ways of using subsidies for quality heifers in calf in order to genetically improve dairy cattle. Registered animals that are under the control of legal entities in charge of selection (selection services) and that are used for milk production are considered quality heifers in calf.

##### Who has a right to use these subsidies?

Legal entities and natural persons that own agricultural farms that are in the Registry; that registered number and kind of their cattle by March 31, 2008; and that own the animals they apply for.

The amount gained per quality heifer in calf is 5,600 RSD. At least three and up to 100 heads per registered farm are eligible for the subsidy.

#### 2. Regulation on subsidies for bullock fattening in 2008

This regulation determines ways of using subsidies for fattening of bullock of domestic beef, Simmental beef type and other breeds weighing over 160 kg.

Beneficiary is entitled to use the subsidy if a fattened animal was produced on their own farm or it was bought but will spend at least 180 days at the beneficiary's farm, and is intended for meat production.

##### Who has a right to use these subsidies?

Legal entities and natural persons that own agricultural farms that are in the Registry; that registered number and kind of their cattle by March 31, 2008; and that own the animals they apply for.

The amount gained for domestic beef of Simmental type or Simmental breed is 7,000 RSD; other breeds can gain 3,000 RSD. The subsidies are realized once per head during the fattening period. At least three and up to 100 heads per registered farm are eligible for the subsidy.

#### 3. Regulations on subsidies for support in provision of basic herd in livestock in 2008

The subsidies are intended for provision of heifers, tugs, bucks, gilts, boars, and parent poultry breeding stock.

**Who has a right to use these subsidies?**

Natural persons that own registered farms and animals they apply for.

**How to realize right to the subsidy?**

If the livestock are bought in Serbia or some other country and they are intended for reproduction on the beneficiary's farm for the following 3-4 years.

If the parent breeding flock of poultry is bought in some other country and is intended for reproduction on the beneficiary's farm for the following year

Subsidies are non-returnable in the percentage of the whole amount minus VAT. For parent poultry flocks it is 10 percent, and for all the others mentioned, 25 percent. The subsidy cannot exceed 350.000 RSD per beneficiary.

**4. Regulation on subsidy for quality breeding animals and selected queen bees**

The beneficiaries are entitled to the subsidy if the quality animal for breeding is bought or it is produced on their own farm and is intended for reproduction on the beneficiary's farm for the following four years (cattle-breeding, sheep-farming and goat-breeding).

**Who has a right to use these subsidies?**

Natural persons and legal entities as well as entrepreneurship registered in the Register of agricultural farms.

This subsidy is realized once during a reproduction, after the first calving, lambing, kidding or farrowing. The amount is given per head—12,000 RSD for a quality cow that has calved only once, 15,000 RSD for quality breeding bulls intended for natural reproduction, 2,500 RSD for quality breeding sheep and goats that have had their first lambing (kidding), 2,500 RSD for quality breeding tugs and bucks, 2,000 RSD for quality breeding sows, 2,000 RSD for quality breeding boars.

**5. Regulation on the program of distribution and usage of subsidies for maintaining and usage of domestic animals genetic resources for 2008****Who has a right to use these subsidies?**

Natural persons and legal entities registered in the Register of agricultural farms and that own rare breeds of domestic animals; research and educational institutions as well as other legal entities dealing with maintenance of domestic animals genetic resources.

**How may beneficiaries realize their right to the subsidy?**

Beneficiaries are entitled to these subsidies if they are owners of a number of rare breeds of domestic animals: at least 5 heads of podolsko beef (up to one animal [?] per 5 heads), domestic buffalo (up to one animal [?] per 10 heads); at least 10 heads of Balkan donkeys (up to one donkey per ten heads); at least 15 heads of mangulitsa (up to one boar per 15 heads); at least 10 heads of moravka (up to one boar per 10 heads); at least 20 heads for local breeds of pramenka—pirotski, krivovirski, bardoka, lipski, vlasko vitorogi, and cokanska cigaja ( up to one tug per 20 heads); at least 20 heads of Balkan goats (up to 1 buck per 20 heads); at least 50 poultry heads (up to 1 rooster per 25 heads); and at least 1 head for other breeds and species.

#### **6. Regulation on the animal health care program for 2008**

- Diagnostic testing of cattle for tuberculosis, brucellosis, enzootic leucosis, and blue tongue.
- Diagnostic testing of sheep and goats for brucellosis
- Vaccination of pigs against classical swine fever
- Vaccination of poultry against Newcastle disease in extensive breeding conditions
- Vaccination of cats and dogs against rabies
- Diagnostic testing when there suspicion of a presence of a particularly dangerous infectious animal disease or zoonotic disease.

If some of the named diseases are diagnosed, animal owners are reimbursed by the Republic of Serbia.

#### **7. Regulation on the program of livestock improvement for 2008**

In 2008, local and regional exhibitions of big and small ruminants and hoofed animals, organized by authorized organizations, will be funded.

Distribution of funds will be determined by the Ministry according to the open competition carried out.



# ANNEX II. LIVESTOCK WORKPLAN YEAR 2



USAID Agribusiness Project

## Year 2 Work Plan, Annex II.1

### LIVESTOCK

October 1, 2008 - September 30, 2009

#### Overview

Since the sector is already export oriented, the USAID Agribusiness Project work with the livestock sub-sector in Y1 was focused on finding the best entry points to increase competitiveness of Serbian businesses in foreign markets, market linking and consequently increasing the value of the domestic and exported products. The long term strategy is: "Getting back to where we were in terms of export in 1990", and gradually increasing the volume to double the levels of export. To increase volume of exports from nearly 10,000 tons to 20,000 tons of beef, Serbia needs to breed additional 50,000 steers. For a domestic market increase in sales of 10,000 tons, another 50,000 steers are needed in the fattening operation. The USAID Agribusiness Project task is to support the strategy of increasing the sales in both the domestic and export markets by supporting Serbian producer organizations to breed additional 100,000 steers annually until 2012.

#### OBJECTIVE 1: STRENGTHEN PRODUCER ORGANIZATIONS

- *Task 1.1 Linking producer organizations, individual farmers, ABDS providers and slaughterhouses*

Training sessions will be held in five regions in Serbia: Pirot, Nis, Krusevac, Cacak and Uzice. The activity will be facilitated by the national ABDS provider "Agrar Kontakt" and local ABDS providers, including a "training of trainers". The agenda includes lectures, which will be followed with the workshops, and practical demonstrations that will cover topics such as artificial insemination, treatment of hoofs, and grading of body shape in livestock (bulls and heifers). The expected results include better cooperation between slaughterhouses and the producers, an improved market oriented approach, an increased number of cattle per farm, and better yields per steer fattened.

*Project timeframe: September 2008 - February 2009*

*Expected results: 150 farmers, 10 producer organizations, 5 ABDS providers and 3 slaughterhouses trained; 2,000 farmers breeding additional 100,000 steers annually*

- **Task 1.2 Formalization of livestock farmers to register animals**

This activity will make the farmers eligible to become recipients of subsidies by Ministry of Agriculture to increase the production. The Project will support ABDS providers to solve the market failure of a lack of service providers in the regions of Tutin, Sjenica, Prijepolje and Pirot. The activity will be implemented in collaboration with ABDS provider “ZZ Agro Ibar” in Sjenica and other interested local ABDS providers. Our support will enable ABDS providers to certify and register 5,000 cattle annually which would then generate sufficient income for the livestock to continue registrations on their own.

*Project timeframe: November 2008 - September 2009*

*Expected results: 5 ABDS providers assisted; 5,000 cattle registered annually*

- **Task 1.3 Study tour to regional or other EU countries**

This activity will contribute towards the Project strategy of increasing production of baby beef. Our assessment identified the need to provide appropriate examples of good practices which can be accomplished by visits to farms and livestock associations in two countries: one with a transitional economy and another with stable conditions, and adopt positive experiences in the livestock breeding. An ABDS provider such as IMPAK would organize the tour. The results expected from this study tour are: adoption of better practices in the livestock breeding, introduction to the EU standards in the farm management, methods to lower production costs, and more competitive products.

*Project timeframe: March 2009*

*Expected results: 10 farmers and 10 ABDS providers trained*

## **OBJECTIVE 2: IMPROVE ABDS DELIVERY**

Demanding markets will force stakeholders along the sub-sector to seek ABDS services that are more competitive. The need for ABDS services will vary from one to another livestock producer, and from a meat processing plant to a livestock association. The Project will support sector specific services, livestock certification, education in the field of livestock and veterinary services, to improve ABDS human resources and thus contribute to sustainable and strategic rural development.

- **Task 2.1 Training programs to improve links among livestock stakeholders**

Following the “training of trainers” program above, regional ABDS providers in agricultural extension service stations Pirot, Nis, Krusevac, Cacak and Uzice will deliver practical advice and assistance in the field. The idea is to improve links among producer organizations, individual farmers, ABDS providers and slaughterhouses, by using the agricultural extension service stations as a hub for coordination with these stakeholders.

*Project timeframe: November 2008 - August 2009*

*Expected results: 100 farmers, 20 ABDS providers, 5 slaughterhouses trained*

## **OBJECTIVE 3: YOUTH ENTERPRISE PROGRAM AND BUSINESS PLAN COMPETITION**

The Youth Enterprise Program intends to attract and retain Serbian youth in agriculture and agribusiness. The USAID Agribusiness Project will organize one-day lectures in the agriculture schools explaining to young students the potential benefits of working in the Serbian agribusiness.

- **Task 3.1 Assistance to young farmers/entrepreneurs through youth business plan competition program**

The Project will support the best and most viable business plans in the livestock sector. In Year 2, two business plans in the livestock sector will be implemented through grants. Both business plan projects will focus on the purchase of steers for fattening, because these farmers have good preconditions for that operation.

*Project timeframe: November 2008– January 2009*

*Expected results: Two farmers assisted, increase in steers by 50%*

#### **OBJECTIVE 4: INCREASE VALUE-CHAIN AND/OR CLUSTER COMPETITIVENESS**

The activities below are intended to increase the overall competitiveness of the value chain. The main focus will be on increasing competitiveness of Serbian livestock producers and POs in the domestic market, through introducing new technologies and technical assistance packages, consequently increasing sales margins. Livestock producers and processors will be the focus points of intervention, especially those looking for solutions to improve their business, diversify and add value to their products.

Export promotion, market surveys, consulting and other advisory services are also commonly needed by stakeholders along the livestock subsector.

In the Year Two, the Project will provide assistance to at least 150 farmers, 10 producer organizations, 5 ABDS providers and 3 slaughterhouses and add at least extra \$2 million of sales.

- **Task 4.1 Participation of meat processing companies in trade shows**

The main criteria for selection of participating companies will be their size and willingness to expand their operations. The Project will support the medium sized companies willing to expand their operations such as: “Klanica A.D. Divci”, “Djurdjevic Meat Industry”, “Klanica Nedeljkovic” and “Kotlenik Promet”. These companies will participate in the Moscow Fair and the Novi Sad Fair, in cooperation with the Project and SIEPA.

*Project timeframe: February– May 2009*

*Expected results: Four slaughterhouses assisted, increase in domestic and export sales by \$800,000*

- **Task 4.2 Increasing value added products**

The purpose of this activity will be to enhance the revenue of agricultural producers and increase the value of agricultural commodities (meat) by processing value added foods. Training programs will be organized by the ABDS providers in three regions of Serbia on topics such as: providing opportunities for producers to add value to their product by becoming members and investing in a closed food processing cooperative, and production of the highest quality food products utilizing raw agricultural commodities and state of the art technology.

*Project timeframe: February– May 2009*

*Expected results: Four slaughterhouses assisted, increase in domestic and export sales by \$800,000*

	Responsibility	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
<b>LIVESTOCK</b>													
<b>OBJECTIVE 1: STRENGTHEN PRODUCER ORGANIZATIONS</b>													
Task 1.1 Linking of producer organizations, individual farmers, ABDS providers and slaughterhouses.	TBD, NP, PC												
Task 1.2 Formalization of livestock farmers to register animals	TBD, PC, NP												
Task 1.3 Study tour to Croatia and another country of EU	TBD, STTA												
<b>OBJECTIVE 2: IMPROVE ABDS DELIVERY</b>													
Task 2.1 Training programs to improve links among livestock stakeholders	TBD, ABDS												
<b>OBJECTIVE 3: YOUTH ENTERPRISE PROGRAM AND BUSINESS PLAN COMPETITION</b>													
Task 3.1 Assistance to young farmers/ entrepreneurs through youth business plan competition program	IP, TBD												
<b>OBJECTIVE 4: INCREASE VALUE-CHAIN AND/OR CLUSTER COMPETITIVENESS</b>													
Task 4.1 Participation of meat processing companies in trade shows	TBD, RL												
Task 4.2: Increasing value added products	TBD, ABDS												